CLAIMS:

1. A plasma display screen comprising a carrier plate, a transparent front plate, a rib structure which divides the space between the carrier plate and the front plate into plasma cells, which are filled with a gas, and comprising one or more electrode arrays on the front plate or on the front plate and the carrier plate to generate corona discharges in the plasma cells, and comprising a phosphor layer and a reflection layer, characterized in that the reflection layer contains a non-metallic powder having a refractive index for the wavelength range from 147 nm to 700 nm of $n = n_{real}+ik$, where $n > 1.3$ and $k < 0.05$, said powder having an average grain diameter of $100\ nm < d < 1000\ nm$.

2. A plasma display screen as claimed in claim 1, characterized in that the reflection layer has a layer thickness $s > 1\ \mu m$.

3. A plasma display screen as claimed in claim 1, characterized in that the gas comprises xenon and that the non-metallic powder is selected from the group formed by MgF_2, MgO, SiO_2 and Al_2O_3.

4. A plasma display screen as claimed in claim 1, characterized in that the reflection layer is a multilayer.